AMENDMENTS TO THE CLAIMS

1-9. (Canceled)

10. (Currently amended) A system for controlling an antenna that is mounted on a vehicle, the system comprising:

a motor coupled to adjust an orientation of the antenna with respect to the vehicle;

angular velocity sensors, which are ~~attached~~ fixed to the antenna and are configured to generate outputs indicating a measure of a rotation of the antenna about respective axes of a coordinate system that is fixed with respect to the antenna ~~irrespective of motion of the vehicle~~; and

an antenna control block, which is coupled to receive and process the outputs so as to calculate a correction to be applied to the measure of the rotation, and to cause the motor to change the orientation of the antenna with respect to the vehicle responsively to the measure of the rotation subject to the correction.

11. (Previously presented) The system according to claim 10, and comprising an inclination sensor, which is configured to measure an inclination of the antenna, wherein the antenna control block is coupled to calculate the correction responsively to the measured inclination.

12. (Previously presented) The system according to claim 11, wherein the angular velocity sensors are configured to sense the rotation of the antenna about respective horizontal axes, and wherein the inclination sensor is configured to measure the inclination of the antenna relative to a vertical axis.

13. (Previously presented) The system according to claim 12, wherein the control block is configured to integrate the outputs of the angular velocity sensors in order to

calculate respective inclination angles of the angular velocity sensors, and to calculate the correction by comparing the calculated inclination angles to the measured inclination.

14. (Previously presented) The system according to claim 10, and comprising an electronic beam control block, which is coupled to adjust a beam direction of the antenna under control of the antenna control block.

15. (Previously presented) The system according to claim 14, wherein the antenna control block is configured to drive the motor to scan the antenna mechanically about a first axis while the beam direction is held fixed with respect to a second axis, and to calculate the correction based on respective strengths of a signal received from the antenna in two or more positions of the antenna.

16. (Previously presented) The system according to claim 10, wherein the antenna control block is configured to perform a forward coordinate transformation based on the outputs of the angular velocity sensors in order to correct an azimuth and elevation of the antenna, and to perform a reverse coordinate transformation in order to calculate the correction to be applied to the measure of the rotation indicated by the outputs.

17. (Currently amended) A method for controlling an antenna that is mounted on a vehicle, the method comprising:

receiving outputs of angular velocity sensors that are ~~attached~~ fixed to the antenna, the outputs indicating a measure of a rotation of the antenna about respective axes of a coordinate system that is fixed with respect to the antenna ~~irrespective of motion of the vehicle~~;

processing the outputs so as to calculate a correction to be applied to the measure of the rotation; and

driving a motor to change an orientation of the antenna with respect to the vehicle responsively to the measure of the rotation subject to the correction.

18. (Previously presented) The method according to claim 17, and comprising measuring an inclination of the antenna using an inclination sensor, wherein processing the outputs comprises calculating the correction responsively to the measured inclination.

19. (Previously presented) The method according to claim 18, wherein the angular velocity sensors are configured to sense the rotation of the antenna about respective horizontal axes, and wherein the inclination sensor is configured to measure the inclination of the antenna relative to a vertical axis.

20. (Previously presented) The method according to claim 19, wherein calculating the correction comprises integrating the outputs of the angular velocity sensors in order to calculate respective inclination angles of the angular velocity sensors, and comparing the calculated inclination angles to the measured inclination.

21. (Previously presented) The method according to claim 17, and comprising electronically adjusting a beam direction of the antenna responsively to the measure of the rotation.

22. (Previously presented) The method according to claim 21, wherein driving the motor comprises scanning the antenna mechanically about a first axis while the beam direction is held fixed with respect to a second axis, and wherein processing the outputs comprises calculating

the correction based on respective strengths of a signal received from the antenna in two or more positions of the antenna.

23. (Previously presented) The method according to claim 17, wherein processing the outputs comprises performing a forward coordinate transformation based on the outputs of the angular velocity sensors in order to correct an azimuth and elevation of the antenna, and performing a reverse coordinate transformation in order to calculate the correction to be applied to the measure of the rotation indicated by the outputs.